

Work Order ID 155866

Wednesday, January 18, 2017 7:33:31 AM

study mrs
155866

Page 1

Item ID: K591-113 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Short Step Installation
 Start Date: 1/26/2017 Start Qty: 7.00 ***7*** Cust Item ID:
 Required Date: 3/1/2017 Req'd Qty: 7.00 ***7*** Customer:
 Reference:

Approvals: Process Plan: DAS 21 9-89 Date: JAN 20 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9525	A								<u>DAS 21 9-89</u> <i>17-02-07</i>
104	Pick Kit	0.00							
104									
Packaging	Memo	0.00							
Packaging									
105	QC4- 100% Inspect kits for completeness	0.00							
105									
QC	Memo	0.04							
Quality Control									
110	Identify as per dwg & Stock Location: _____	0.00							
110									
Packaging	Memo <i>Fg128 X7</i>	0.01							
Packaging	***CHG005***								

7x DAS 27 9-89
FEB 08 2017

7 DAS 6 9-89 FEB 07 2017 DAS 28 9-89

7x DAS 27 9-89
FEB 08 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Work Order ID 155866

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155866

Page 2

Item ID: K591-113

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Short Step Installation

Start Date: 1/26/2017 Start Qty: 7.00

7

Cust Item ID:

Required Date: 3/1/2017 Req'd Qty: 7.00

7

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89		FEB 08 2017
120									
QC	Memo	0.12							
Quality Control									

FEB 08 2017

DAS
21
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Work Order ID: 155866

155866

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Installation

Start Date: 1/26/2017

Required Date: 3/1/2017

Start Qty: 7.00

Required Qty: 7.00

Comments: IPP: C04.11.09ReformatKJ/JLM
as per revG DD 10.04.20 verified by:EC
586 10.06.18 DD verf:EC

IPP Rev:D
IPP Rev:E as per ECN10-

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2171 *D2171* Clamp		Manufactured	No			104	Each	26.0000	2	14	DAS 6 9-89		
				<u>Location</u>				<u>Loc Qty</u>					
				ST542				26					
				151392				6					
				152356				8					
				154022				12					
D2274 *D2274* Radius Block		Manufactured	No			104	Each	591.0000	4	28	DAS 6 9-89		
				<u>Location</u>				<u>Loc Qty</u>					
				FG				12					
				86855				12					
				ST006				276					
				150353				1					
				151763				275					
				ST012a				303					
				152449				303					
D2182B *D2182B* Rubber Cushion - Black (\$Per Foot)		Manufactured	No			104	f	142.7650	0.5833	4.0831	DAS 6 9-89		
				<u>Location</u>				<u>Loc Qty</u>					
				ST411				142.765					
				135093				142.765					

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OTHER : ☐					

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155866

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Installation

Start Date: 1/26/2017

Required Date: 3/1/2017

Start Qty: 7.00

Required Qty: 7.00

D2362-3 Manufactured No

104 Each

0.0000

1 7

D2362-3

Step Support Bracket

D3595-200-300

Manufactured No

104 Each

48.0000

1 7

D3595-200-300

Rubber Cushion 2.00" wide x 3.00" Long

Location

Loc Qty

Loc Code

FG

1

84209

1

ST416

47

154314

1

154944

46

104

Each

74.0000

2 14

AN3-37A

Purchased

No

AN3-37A

Bolt

Location

Loc Qty

Loc Code

FG

10

119086

10

over003

30

m136534

30

ST347

34

m135530

4

m135945

30

104

Each

74.0000

4 28

AN4-21A

Purchased

No

AN4-21A

Bolt

Location

Loc Qty

Loc Code

over003

50

m133694

50

ST342

24

m133640

24

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Page 2

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WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order ID: 155866

155866

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Installation

Start Date: 1/26/2017

Required Date: 3/1/2017

Start Qty: 7.00

Required Qty: 7.00

AN4-22A Purchased No

104 Each 159.0000 1 7

AN4-22A

Bolt

**

DAS
6
9-89

FEB 07 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

50

116419

50

over003

100

m136586

100

ST342

9

123348

9

NAS1149D0363J Purchased No

104 Each 1,128.000 4 28

NAS1149D0363.J

Washer

**

DAS
6
9-89

FEB 07 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

272

m134055

272

ST263

856

m136318

856

NAS1149D0463J Purchased No

104 Each 2,479.000 6 42

NAS1149D0463.J

Washer

**

DAS
6
9-89

FEB 07 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

80

M134508

13

M135056

67

ST260a

1200

M136192

600

M136263

600

ST263

1199

M136044

199

M136406

1000

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DQA: _____ Date: _____



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K591-113

Parent Item Name: Short Step Installation

Start Date: 1/26/2017

Required Date: 3/1/2017

Start Qty: 7.00

Required Qty: 7.00

MS21042L3 Purchased No

104 Each 1,970.000 2 14

MS21042L3

Nut

**

DAS 27 9-89
DAS 6 9-89
FEB 07 2017

DAS 27 9-89

Location

Loc Qty

Loc Code

FP001

100

m135945

100

GA

162

m134360

108

m135135

54

OVER007

500

M136554

500

ST303

1208

M136044

108

M136192

600

M136406

500

MS21042L4 Purchased No

104 Each 1,857.000 3 35

MS21042L4

Nut

**

DAS 27 9-89
DAS 6 9-89
FEB 07 2017

DAS 27 9-89

Location

Loc Qty

Loc Code

FP001

18

m133363

18

GA

192

m135058

192

OVER007

500

m136450

500

ST303

1147

m136182

500

m136295

647

136648

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 REV. 3

REF TCCA STC: SH92-6

REF FAA STC: SH967NE

PURPOSE:

TO PROVIDE AN OPTIONAL CUSHION KIT TO BE INSTALLED ON THE D350-591-111A/-113/-115/-117A/-119 Heli-Access-Step™ (THE D2856-400-720 ABRASION STRIP IS REPLACED WITH THE D3595-200-300 CUSHION).

CHANGE:

FOR D350-591-111A/-113/-115 @ CHG 005 (OR LATER), D350-591-117A @ CHG 003 (OR LATER) AND D350-591-119 @ CHG 004 (OR LATER), THE PARTS LIST OF INSTALLATION INSTRUCTIONS D350-591 AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 IS AMENDED AS FOLLOWS:

QTY -111A	QTY -113	QTY -115	QTY -117A	QTY -119	Part Number	Description
X					D350-591-111A	Heli-Access-Step™, Long Step – High Skid
	X				D350-591-113	Heli-Access-Step™, Short Step – High Skid
		X			D350-591-115	Heli-Access-Step™, Short Step – Low Skid
			X		D350-591-117A	Heli-Access-Step™, Pre-Flight Step
				X	D350-591-119	Heli-Access-Step™, Long Step – Low Skid
	1				D2310	STEP ASSEMBLY (HIGH-SHORT)
1					D2311	STEP ASSEMBLY (HIGH-LONG)
		1			D2354	STEP ASSEMBLY (LOW-SHORT)
				1	D2355	STEP ASSEMBLY (LOW-LONG)
4	2	2	2	2	D2171	CLAMP
4	2	2	2	2	D2182B035	CUSHION
8	4	4	4	4	D2274	RADIUS BLOCK
			1		D2362-041	SUPPORT BRACKET
2	1			1	D2362-3	SUPPORT BRACKET
		1			D2362-5	SUPPORT BRACKET
2	1	1	1	1	D3595-200-300	CUSHION (NEW)
2	2	2		2	AN3-37A	BOLT
		4			AN4-20A	BOLT (REPLACED, WAS AN4-16A)
8	4			4	AN4-21A	BOLT (REPLACED, WAS AN4-20A)
1	1	1	4	1	AN4-22A	BOLT
4	4	4		4	NAS1149D0363J	WASHER (OR AN960JD10)
10	6	2	4	6	NAS1149D0463J	WASHER (OR AN960JD416)
		4			NAS1149D0416J	WASHER (OR AN960JD416L)
2	2	2		2	MS21042L3	NUT
9	5	5	4	5	MS21042L4	NUT

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)

DATE: 10.06.08
CERT. NO.: SH92-6
ISSUE NO.: 11

A	NEW ISSUE.	JPH	10.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		STEP CUSHION CHANGE	NTS
DATE	10.06.08	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

THE DSI-9525-XXX KITS THAT ARE AVAILABLE FROM DART TO UPGRADE THE D350-591-111A/-113/-115 KITS @ CHG 004 (OR EARLIER), THE D350-591-117A KIT @ CHG 002 (OR EARLIER) AND THE D350-591-119 KIT @ CHG 003 (OR EARLIER) ARE AS FOLLOWS:

QTY -011	QTY -013	QTY -015	QTY -017	Part Number	Description
X				DSI-9525-011	STEP CUSHION KIT (FOR D350-591-111A)
	X			DSI-9525-013	STEP CUSHION KIT (FOR D350-591-113/-119)
		X		DSI-9525-015	STEP CUSHION KIT (FOR D350-591-115)
			X	DSI-9525-017	STEP CUSHION KIT (FOR D350-591-117A)
2	1	1	1	D3595-200-300	CUSHION
		4		AN4-20A	BOLT
8	4			AN4-21A	BOLT
			4	AN4-22A	BOLT
8	4	4	4	NAS1149D0463J	WASHER (OR AN960JD416)
8	4	4	4	MS21042L4	NUT

INSTRUCTIONS:

TO INSTALL THE D3595-200-300 CUSHION:

1. REMOVE THE STEP PER ICA-D350-591 SECTION 32.2
2. REMOVE THE D2856-400-720 ABRASION STRIP PER ICA-D350-591 SECTION 32.4
3. POSITION THE D3595-200-300 CUSHION AS INDICATED ON SHEET 3 OR 4 (AS APPLICABLE) OF THIS SERVICE INSTRUCTION.
4. REINSTALL THE STEP PER ICA-D350-591 SECTION 32.1 AS APPLICABLE USING THE NEW HARDWARE PROVIDED AS SHOWN ON SHEET 3 OR 4 (AS APPLICABLE) OF THIS SERVICE INSTRUCTION.

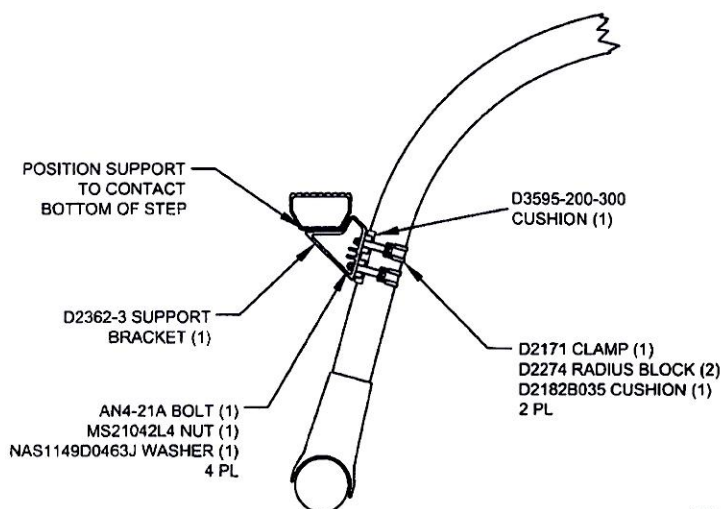
WEIGHT AND BALANCE:

THERE IS A NEGLIGIBLE WEIGHT INCREASE WITH THIS MODIFICATION.

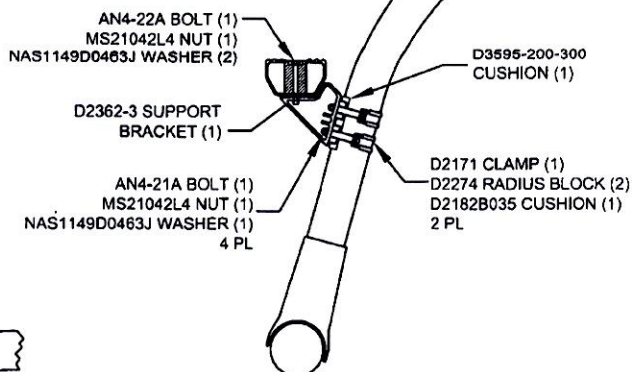
CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)
DATE: 10.06.08
CERT. NO.: SH92-6
ISSUE NO.: 11

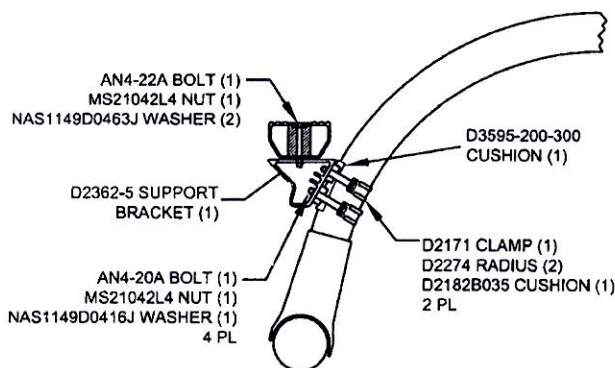
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 2 OF 4
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DE APPR.		STEP CUSHION CHANGE	NTS
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SECTION C-C: CENTER SUPPORT
(D350-591-111A ONLY)
(NOT TO SCALE)



SECTION D-D: AFT ATTACHMENT
(D350-591-111A/-113/-119 ONLY)
(NOT TO SCALE)



SECTION E-E: AFT ATTACHMENT
(D350-591-115 ONLY)
(NOT TO SCALE)

FIGURE 32-9: Crosstube Attachment
REF ICA-D350-591

FIGURE 9: Crosstube Attachment
REF D350-591

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)
DATE: 10.06.08
CERT. NO.: SH92-6
ISSUE NO.: 11

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DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 3 OF 4
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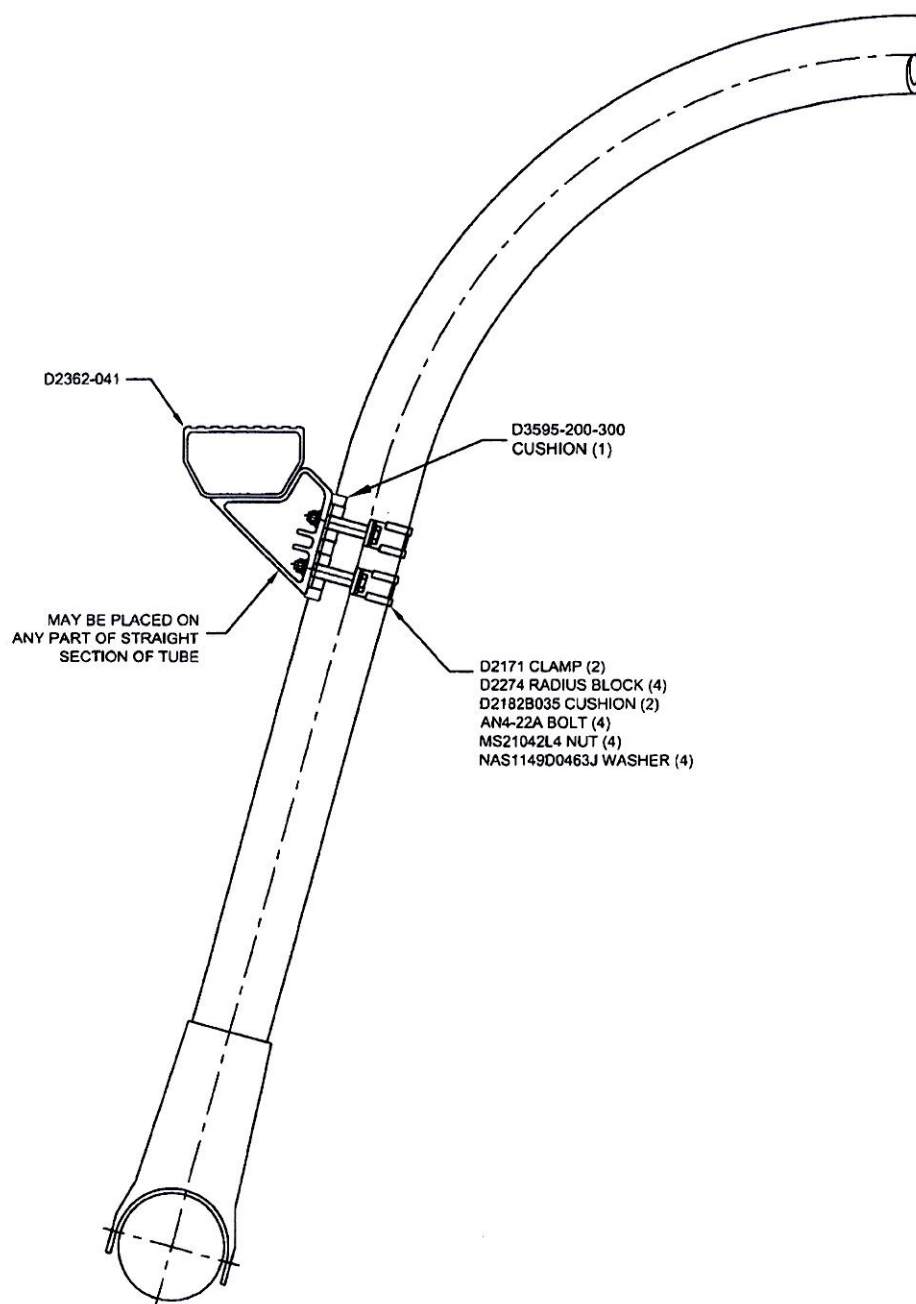


FIGURE 32-10: D350-591-117A Heli-Access-Step™, Pre-Flight Step

REF ICA-D350-591

FIGURE 10: D350-591-117A Heli-Access-Step™, Pre-Flight Step

REF D350-591

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 10.06.08
CERT. NO.: SH92-6
ISSUE NO.: 11

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	STEP CUSHION CHANGE	NTS
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Work Order ID 155866***155866***

Page 1

Tuesday, February 07, 2017 9:07:15 AM

Item ID: K591-113 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Short Step Installation
Start Date: 1/26/2017 Start Qty: 7.00 ***7*** Cust Item ID:
Required Date: 3/1/2017 Req'd Qty: 7.00 ***7*** Customer:
Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9525	A								
104	Pick Kit	0.00							
104									
Packaging	Memo	0.00							
Packaging									
105	QC4- 100% Inspect kits for completeness	0.00							
105									
QC	Memo	0.04							
Quality Control									
110	Identify as per dwg & Stock Location: _____	0.00							
110									
Packaging	Memo	0.01							
Packaging	***CHG005***								

DAS
21
9-89

FEB 07 2017

7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

5.0 PARTS LIST

Qty -117A	Qty -119	Qty -133	Part Number	Description
X			D350-591-117A	<i>Hel-Access-Step</i> ™, Pre-Flight Step
	X		D350-591-119	<i>Hel-Access-Step</i> ™, Long Step – Low Skid
		X	D350-591-133	<i>Hel-Access-Step</i> ™, Aft Maintenance Step
	1		D2355	STEP ASSEMBLY (LOW-LONG)
		1	D2946-041	STEP ASSEMBLY (MAINTENANCE)
2	2		D2171	CLAMP
2	2		D2182B035	CUSHION
		4	D2230-1	MOUNTING LUG
		4	D2230-3	MOUNTING LUG
4	4		D2274	RADIUS BLOCK
1			D2362-041	SUPPORT BRACKET
	1		D2362-3	SUPPORT BRACKET
		1	D2945	MOUNTING PLATE
1	1		D3595-200-300	CUSHION
		8	D2732-030	CUSHION
	2		AN3-37A	BOLT
		2	AN4-7A	BOLT
		4	AN4-11A	BOLT
		8	AN4-16A	BOLT
	4		AN4-21A	BOLT
4	1		AN4-22A	BOLT
	4		NAS1149D0363J	WASHER (AN960JD10)
4	6	14	NAS1149D0463J	WASHER (AN960JD416)
	2		MS21042L3	NUT
4	5	14	MS21042L4	NUT

Qty -121	Qty -122	Qty -123	Qty -124	Part Number	Description
X				D350-591-121	<i>Hel-Access-Step</i> ™, Short Step – High Skid, LH
	X			D350-591-122	<i>Hel-Access-Step</i> ™, Short Step – High Skid, RH
		X		D350-591-123	<i>Hel-Access-Step</i> ™, Short Step – Low Skid, LH
			X	D350-591-124	<i>Hel-Access-Step</i> ™, Short Step – Low Skid, RH
1				D2351-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1			D2351-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1		D2356-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1	D2356-042	STEP ASSEMBLY (LOW-SHORT, RH)
1	1	1	1	D2230-1	MOUNTING LUG
1	1	1	1	D2230-3	MOUNTING LUG
2	2	2	2	D2732-030	CUSHION
2	2	2	2	AN3-37A	BOLT
1	1	1	1	AN4-13A	BOLT
2	2	2	2	AN4-16A	BOLT
4	4	4	4	NAS1149D0363J	WASHER (AN960JD10)
6	6	6	6	NAS1149D0463J	WASHER (AN960JD416)
2	2	2	2	MS21042L3	NUT
3	3	3	3	MS21042L4	NUT

Work Order ID 154095

Tuesday, February 07, 2017 9:06:56 AM

154095

Page 1

Item ID: D350-591-113

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Heli-Access Step, Short, High Gear

Start Date: 2/6/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 2/27/2017 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2310	D
DSI 9525	A

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D350-591-113 CHG005

DAS
21
9-89

FEB 07 2017

(6)

110

Large Fab

0.00

110

Large Fab

Memo

0.30

Large Fab

1-Cut D2244 extrusion to 62.00" long as per Dwg D2310
2-Drill extrusion as per Dwg D2310 using drill jig DT8230
3-Deburr

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									